

## 510(K) SUMMARY

JUN 20 2013

**A. Submitter Information****Manufacturer:**

Medos International Sàrl  
Chemin-Blanc 38  
2400 Le Locle, Switzerland

**Submitter:**

DePuy Spine, Inc.  
325 Paramount Drive  
Raynham, MA 02767

**Contact Person:**

Kirsten Lehmuller  
325 Paramount Drive  
Raynham, MA 02767

**Telephone number:**

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**B. Date Prepared**

March 27, 2013

**C. Device Name***Trade/Proprietary Name:*

EXPEDIUM® Spine System

*Common/Usual Name:*

Pedicle screw spinal system

*Classification Name:*

Spinal interlaminar fixation orthosis  
per 21 CFR §888.3050, KWP  
Spinal intervertebral body fixation orthosis  
per 21 CFR §888.3060, KWQ  
Pedicle screw spinal fixation  
per 21 CFR §888.3070, MNH, MNI, NKB, QSH

**D. Predicate Device Name**

Trade name: EXPEDIUM® Spine System (K041119)  
EXPEDIUM® Spine System (K062174)  
EXPEDIUM® Spine System (K071495)  
EXPEDIUM® Spine System (K073364)  
EXPEDIUM® Spine System (K082942)  
EXPEDIUM® Spine System (K090230)  
EXPEDIUM® Spine System (K101070)  
EXPEDIUM® Spine System (K111136)

**E. Device Description**

The subject additions to the EXPEDIUM 4.5mm, 5.5mm, and 6.35mm Spine Systems consist of open angled extended, slotted connectors and various rods. The connectors are available in titanium alloy with lengths of 5, 10, 15, and 20mm. The rods vary in size and geometries to accommodate patient anatomy and are available in materials of titanium, stainless steel, and cobalt chrome.

**F. Intended Use**

The EXPEDIUM Spine System is intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion in the treatment of acute and chronic instabilities or deformities of the thoracic, lumbar and sacral spine.

The EXPEDIUM Spine System is intended for noncervical pedicle fixation and nonpedicle fixation for the following indications: degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies); spondylolisthesis; trauma (i.e., fracture or dislocation); spinal stenosis; curvatures (i.e., scoliosis, kyphosis, and/or lordosis); tumor, pseudoarthrosis; and failed previous fusion in skeletally mature patients.

When used for posterior non-cervical pedicle screw fixation in pediatric patients, the EXPEDIUM System metallic implants are indicated as an adjunct to fusion to treat adolescent idiopathic scoliosis. The EXPEDIUM system is intended to be used with autograft and/or allograft. Pediatric pedicle screw fixation is limited to a posterior approach.

**F. Summary of Similarities and Differences in Technological Characteristics, Performance and Intended Use**

The proposed modifications to the EXPEDIUM open extended, angled slotted connector is similar to the predicate (K101070) except the head/rod interconnection is open rather than closed, like the predicate monoaxial screw (K062174). The proposed EXPEDIUM rods are similar to the predicates (K041119, K062174, K071495, K082942, K090230, and K101070) except for the varying lengths and slight modifications to the geometry.

**G. Materials**

Manufactured from ASTM F 138 implant grade stainless steel, ASTM F 136 implant grade titanium alloy, and ASTM F 1537 implant grade cobalt -chromium-molybdenum alloy.

**H. Performance Data**

Performance data per ASTM F 1798 were submitted to characterize the subject EXPEDIUM Spine System connector addressed in this notification. This testing was comprised of static axial slip and both static and dynamic cantilever beam bending. A rationale is provided in place for performance testing for the subject rods of this submission.

**I. Conclusion**

Both the Performance Testing and Substantial Equivalence Justification demonstrate that the subject devices are as safe, as effective, and perform as well as the predicate devices.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Center - WO66-G609  
Silver Spring, MD 20993-0002

June 20, 2013

Medos International, S rl  
% DePuy Spine, Incorporated  
Ms. Kirsten Lehmuller  
325 Paramount Drive  
Raynham, Massachusetts 02767

Re: K130877

Trade/Device Name: EXPEDIUM<sup>®</sup> Spine System  
Regulation Number: 21 CFR 888.3070  
Regulation Name: Pedicle screw spinal system  
Regulatory Class: Class III  
Product Codes: NKB, OSH, MNH, MNI, KWP, KWQ  
Dated: April 4, 2013  
Received: April 5, 2013

Dear Ms. Lehmuller:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set

forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

Erin L. Keith

For

Mark N. Melkerson  
Director  
Division of Orthopedic Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## INDICATIONS FOR USE STATEMENT

510(k) Number (if known): K130877

Device Name: EXPEDIUM® Spine System

### Indications For Use:

The EXPEDIUM Spine System is intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion in the treatment of acute and chronic instabilities or deformities of the thoracic, lumbar and sacral spine.

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Prescription Use ☒ X ☐

AND/OR

Over-The-Counter Use ☐ ☐

(Part 21 CFR 801 Subpart D)

(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

**Ronald P. Jean -S**

(Division Sign-Off)

Division of Orthopedic Devices

510(k) Number: K130877